Theme Papers

Bridging the implementation gap between knowledge and action for health

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Abstract There is widespread evidence of failure to implement health interventions that have been demonstrated to be cost-effective by high-quality research; this failure affects both high-income and low-income countries. Low-income countries face additional challenges to using research evidence including: the weakness of their health systems, the lack of professional regulation and a lack of access to evidence. There is a need to strengthen institutions and mechanisms that can more systematically promote interactions between researchers, policy-makers and other stakeholders who can influence the uptake of research findings. The concept of public engagement with health research requires a public that is both informed and active. Even when systematic reviews are available further work is needed to translate their findings into guidelines or messages that are understandable to patients and health professionals. Many of the commonly used approaches for keeping health professionals' knowledge up-to-date appear to have small or inconsistent effects. The evidence-base is more extensive for interventions directed towards professionals, such as education, reminders or feedback, than for those directed at organizations or patients. The effect of interventions varies according to the setting and the behaviour that is targeted. Case studies in low-income settings suggest that some strategies can result in increased coverage of evidence-based interventions, but there is a lack of evidence from systematic reviews of rigorous research. Given the potential for near-term improvements in health, finding more effective ways of promoting the uptake of evidence-based interventions should be a priority for researchers, practitioners and policy-makers.

Keywords Health services research/utilization; Health plan implementation/methods; Policy making; Evidence-based medicine; Information management; Health personnel; Practice guidelines; Review literature; Developing countries (*source: MeSH, NLM*).

Mots clés Recherche en santé publique/utilisation; Mise en œuvre plan sanitaire/méthodes; Choix d'une politique; Médecine factuelle; Gestion information; Personnel sanitaire; Ligne directrice; pratique médicale; Revue de la littérature; Pays en développement (*source: MeSH, INSERM*).

Palabras clave Investigación sobre servicios de salud/utilización; Implementación de plan de salud/métodos; Formulación de políticas; Medicina basada en evidencia; Gerencia de la información; Personal de salud; Pautas prácticas; Literatura de revisión; Países en desarrollo (*fuente: DeCS, BIREME*).

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Introduction

There is widespread evidence of failure to implement interventions that have been shown to be cost-effective by high-quality research (*1*, *2*). Studies in both the United States of America and Europe have shown that around 30–50% of patients fail to receive clinical interventions that are justified according to the best scientific evidence (*3*, *4*). A recent study looking at primary care in the United Kingdom showed that only around 40% of patients received care that adhered to guideline recommendations for prescribing for four common conditions (*5*). A review of the uptake of interventions to improve child survival, which was based on data from 42 low-income countries, showed that there was wide variation in the proportion of children receiving the interventions; the proportions ranged from around 90% overall for breastfeeding for a duration of 6–11 months to 2% for the use of insecticide-treated materials, and the proportion was even lower for other interventions, such as zinc supplementation (*6*). The authors suggested that around 60% of

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the 9.7 million deaths among children in the countries studied could be prevented by the use of effective and affordable interventions.

There are many examples of ineffective or inefficient treatments being widely used, thus wasting limited resources and placing additional burdens on overstretched health services. Recently discussed examples are the widespread use of unnecessary injections (*7*) or caesarean sections that are not clinically indicated (*8*). In these cases there is a significant risk of harm to patients as well as the waste of limited resources.

While the uptake of research findings can occur through a range of formal and informal processes, effective implementation requires the use of systematic and strategic approaches. This article gives an overview of the effective approaches used to encourage the uptake of research findings for three main groups: policy-makers, the public and health-service providers. It also outlines the additional challenges to implementation in low-income countries and the need for more investment in evaluating implementation strategies.

Role of systematic reviews in providing evidence for research implementation

Where possible this article relies on conclusions arising from systematic reviews. In particular it draws on reviews of "educational, behavioural, financial, organizational and regulatory interventions designed to improve health professional practice and the organization of health care services" published by the Cochrane topic group for Effective Practice and Organisation of Care (EPOC) (*9*). Some types of interventions have not been studied or are impossible or difficult to study in randomized trials. Therefore studies using other designs are eligible for inclusion in Cochrane/EPOC reviews although they must meet strict quality criteria. Although most systematic reviews deal with strategies to change clinical practice, some reviews cover the use of research evidence by policy-makers, patients and the wider public.

Discussion

The role of policy-makers

Policy-makers play an important role in influencing whether and to what degree research findings influence health services and public health, however it is worth heeding the caution "evidence based policy: proceed with care" (*10*). For instance, while there may be extensive research on the effectiveness of health-care interventions, there is often less evidence on their cost-effectiveness, implementation, cultural appropriateness and effects on health inequalities, all of which are important considerations for policy-making (*10*, *11*). In some countries there is growing pressure to demonstrate that government funds spent on research and development have tangible benefits for patients and public health (*12*), but other incentives may drive policy-makers. Elected politicians may feel that their priority is to satisfy the perceived demands of their constituencies, for example by building a hospital catering particularly for the urban elite. In these circumstances research evidence that demonstrates better ways of using resources may be viewed as an irrelevance or even an irritant. The private health-care sector, where for example many unnecessary injections may take place (*7*), is often outside the control of government policy-makers in the absence of appropriate regulatory mechanisms.

Research findings may influence policy through direct "rational" processes or in other ways (*13*). Formal and informal interactions between researchers and policy-makers can influence both research and policy processes. Policy-makers may use research tactically or symbolically by commissioning new research to postpone taking decisions or by selectively using evidence to justify decisions already made. Research findings may also gradually percolate into the language and concepts used in policy-making.

A systematic review on the use of evidence by policy-makers concluded that they consider direct interaction with researchers to be the most influential facilitator of research uptake for policy (*14*). However these direct interactions could be selective or limited in terms of the issues and evidence considered, particularly in light of the volumes of research published every year. Institutions and mechanisms need to be strengthened so that evidence can be more systematically evaluated in the context of policy constraints and interactions between researchers and policy-makers can be more focused (*15*–*17*). While most studies have been conducted in high-income countries, similar factors appeared to influence policy-makers' use of research in low- and middle-income countries (*15*). Key processes during which interactions between research and policy should be considered include (*15*, *16*):

- setting priorities for and commissioning of research
- carrying out the research
- synthesizing the evidence
- setting policy agendas
- formulating policies
- implementing policies
- evaluating the impact of policies.

The role of professional communicators and "knowledge brokers" (*18*), who translate and disseminate research findings in an accessible and useful form to policy-makers and other stakeholders requires evaluation.

Use of research evidence by patients and the public

The increased access to information by the public, although conducive to an increased uptake of effective interventions, does not always predict use (*19*). Information that is not congruent with existing cultural values may not be assimilated, and better informed patients and the public may be more critical or wary of certain health interventions (*20*, *21*).

The public interacts with health research in a variety of ways, for instance by influencing research agendas, contributing to research processes both as participants and by offering lay expertise, as consumers of research-informed health services and products, and by being involved in community and advocacy activities. Enhancing public participation is increasingly seen as a method of promoting and uptake of health research (*20*, *21*). Mechanisms to facilitate a more systematic exchange of knowledge among the public, researchers, health practitioners and policy-makers show potential in promoting the relevance and uptake of health research (*18*–*20*). An example of these mechanisms would be ensuring that educational curricula at different levels reflect the current synthesis of research evidence (*22*).

The media can also influence the behaviour of policy-makers, health service providers, industry and the general public (*20*, *23*). Social marketing and direct-to-consumer advertising through various media are widely used to inform the public and influence their opinion on matters related to health interventions (*24*, *25*). The impact of such advertising on health may be positive or negative depending on the nature of the product.

Interaction with health-care providers is still the main means through which the public learns about and uses health interventions (*26*). Training both health practitioners and consumers how to communicate effectively and helping the public to develop health literacy skills may enhance the utilization of health interventions. Interactive media, including decision aids, can deliver both quantitative data on outcomes and qualitative data on the experience of those outcomes in a personalized way that gives lay people a clear perception of the treatment options open to them and the consequences of each option (*27*). Tools have also been developed to assist in appraising information materials for patients for accuracy and other characteristics (*28*).

Mechanisms aimed at increasing the public's engagement with health research and implementation processes have been used in several countries (*20*, *21*, *25*); these mechanisms include citizens' juries, public consultations and research review boards. However, public participation in health systems may fulfil a number of purposes, such as helping the system to increase its responsiveness to users' requirements, and these may not always be related to the implementation of research findings.

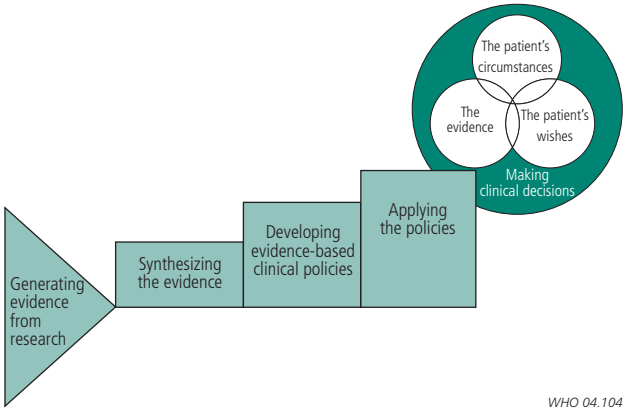
Service providers

Given the immense volume of research conducted — for example, there are more than 400 000 trials in the Cochrane Controlled Trials Register (*29*) — it is not surprising that few practitioners have the time or skills to search for and appraise the relevant evidence. While systematic reviews help practitioners in that they appraise and summarize findings, further work is needed to translate them into guidelines or messages that are understandable to patients and health professionals.

The path from generating evidence to applying it with individual patients or populations has a number of steps (*30*) (Fig. 1). Even when good quality evidence exists in a form that can be used by health professionals, there are many barriers to uptake (*31*) (Box 1). These barriers may vary between the different steps on the pathway, the clinical context and the institutional and political setting, and the nature of the research finding. For example, a lack of resources to purchase medicines constitutes a barrier in low-income countries but not in most high-income settings. These barriers can interact in complex ways to retard the implementation of research. For example, those findings that depend for their implementation on the presence of well trained health professionals or advanced technology will face more obstacles than those that depend solely on an intervention that can be delivered even where the health system is rudimentary, such as vaccination campaigns.

Many of the commonly used approaches to keeping health professionals up to date appear to have small or inconsistent effects. For example, merely circulating guidelines or other documentation to health professionals has only a small effect on practice, and traditional educational approaches, such as didactic courses or conferences, give mixed results (*32*, *33*).

Fig. 1. **The path from evidence generation to clinical application** (*30*). A similar pathway can be applied to public health interventions, but in that case the circumstances, wishes and beliefs of the community are important in determining the application of the evidence. (Reproduced with the permission of *BMJ*)



Box 1. **Potential barriers to change**

Barriers may exist in the:

Healthcare system
- Lack of financial resources
- Inappropriate financial incentives
- Inadequate human resources (quantity and quality)
- Lack of access to care
- Health policies that fail to promote cost-effective interventions or advocate unproven activities
- Failure to provide practitioners with access to appropriate information

Practice environment
- Limitations of time
- Poor practice organization, for example, there may be a lack of disease registers or mechanisms to monitor repeat prescribing

Educational environment
- Failure of curricula to reflect research evidence
- Inappropriate continuing education and failure to link up with programmes to promote quality of care
- Lack of incentives to participate in effective educational activities
- Influence of commercial interests may bias educational activities

Social environment
- Influence of media may create inappropriate demands/beliefs
- Influence of social fads and trends
- Impact of disadvantage on patients' access to care, literacy and health behaviours

Political environment
- Ideological beliefs may be inconsistent with research evidence
- Political corruption
- Short-term thinking may dominate

Practitioner
- Obsolete knowledge
- Influence of opinion leaders may go against research evidence
- Beliefs and attitudes (for example, these may be related to previous adverse experience of innovation)

Patient
- Demands for ineffective care
- Perceptions or cultural beliefs about appropriate care.

However, factors that in some circumstances may be perceived as barriers to uptake can also act as levers for change. For example, patients may influence practitioners' behaviour towards clinically effective practice by requesting interventions of proven effectiveness. Practitioners may be influenced positively by opinion leaders, and the media may promote cost-effective interventions. The relative importance of barriers within and between categories may vary according to the local context.

Adapted from (*31*)

An overview of reviews of intervention studies to change practices described the effects of 17 strategies (Table 1) (*34*). The number of studies addressing each strategy ranged from 2–98. The evidence-base is more extensive for professionally oriented interventions, such as education, reminders or feedback, than for those directed at organizations or patients. Most interventions had some effect, but the effects varied according to the setting and the targeted behaviour. For example, educational outreach visits seemed particularly useful for influencing prescribing and prevention activities; reminders were especially useful for prevention; and computerized decision support was useful for both drug dosing and prevention activities.

Clinical guidelines have had a chequered history; many early versions were not evidence based, leading to unnecessary and sometimes harmful activities, as well as the loss of credibility of the guideline-development process. Guidance on various aspects of developing guidelines has been published to ensure that the level of evidence used to justify a recommendation is made explicit and that provision is made for regular updating (*35*).

If guidelines are to be useful in practice, they need to be accompanied by an active dissemination strategy. A review of factors influencing adherence to the recommendations of guidelines found that more complex guidelines were less likely to be followed (*36*). Other studies have suggested that better adherence is associated with the following facilitating factors (*37–39*):

- the guideline addresses an acute rather than a chronic condition
- the quality of the supporting evidence is good
- the guideline requires few new skills and little organizational change
- the guideline is compatible with existing values and
- the guideline gives a concrete description of the performance that is advocated.

However, these factors account for less than 20% of the variation in adherence. In general, median absolute improvements in performance are modest, ranging from 14% for reminders to 6% in cluster randomized trials of multifaceted interventions involving educational outreach; however there is considerable variation between studies in the magnitude of effects (*40*) These overall modest effects may suggest that either barriers are inaccurately characterized or that strategies to overcome them are often ineffective. A review of 235 trials did not support the proposition that combined interventions addressing specific barriers to change are more effective

Table 1. **Overview of strategies for implementing evidence and conclusions of reviews**[a] (*34*)

Strategy	No. of reviews[b]	No. of studies	Conclusions
Educational materials	9	3–37	Mixed effects
Conferences, courses	4	3–17	Mixed effects
Interactive small-group meetings	4	2–6	Mostly effective but few studies
Educational outreach visits	8	2–8	Especially effective for prescribing and prevention
Use of opinion leaders	3	3–6	Mixed effects
Education with different educational strategies	8	5–63	Mixed effects dependent on combination of strategies
Feedback on performance	16	3–37	Mixed effects; most effective for test ordering
Reminders	14	4–68	Mostly effective, particularly for prevention
Computerized decision support	5	11–98	Mostly effective for drug dosing and prevention strategies
Introduction of computers into practice	2	19–30	Mostly effective
Substitution of tasks	6	2–14	Expanding pharmacist's role: positive effect on doctors' prescribing; delegation of tasks to nurses: mixed effects
Multiprofessional collaboration	5	2–22	Effective for a range of chronic conditions
Mass media campaigns	1	22	Mostly effective
Total quality management/continuous quality improvement	1	55	Limited effects; mostly evaluated in single-site non-controlled studies
Financial interventions	6	3–89	Fundholding and budgets are effective, mainly on prescribing
Patient-mediated interventions	8	2–14	Mixed effects; reminding by patients is effective in prevention
Combined interventions	16	2–39	Most reviews found them more effective than single interventions; not confirmed in recent reviews

[a] This table is reproduced with permission from the *Lancet*.

[b] This is the number of reviews that included studies addressing the interventions. However, since different reviews are likely to include some of the same primary studies, the number of reviews undertaken on a specific topic does not give a reliable indication of the volume of research on a given topic. The figures in the No. of studies column indicate the range of the number of intervention studies included in each review. A qualitative summary of the conclusions of reviews on a given topic has been made.

than single interventions. It is difficult to draw generalizable conclusions about appropriate combinations because of the large number of different combinations tested and methodological and reporting weaknesses (*40*).

Decision analysis combines probabilistic information about the effects of interventions with utilities or values that reflect to what degree a patient (or policy-maker) is prepared to accept any adverse effects against the advantages of a given course of action. It has been used widely in policy and practice to guide the decisions of individual patients, to inform the decisions faced by those who commission services and to influence research design and priority setting (*41*, *42*).

Implementation strategies in low-income and middle-income countries

There is a relative dearth of primary research on health problems that particularly afflict poor communities, and a compelling case has been made for increased investment in such research (*43*). This deficit is paralleled by a lack of evidence of effective implementation strategies in low-income settings.

Low- and middle-income countries face additional challenges to using research evidence when compared with high-income nations. These challenges include: the weakness of health systems, the lack of professional regulation and opportunities for continuing professional development, the lack of access to research evidence, and the effects of unregulated commercial interests which may, for example, market inappropriate drugs (*44*). Some national governments have acted to promote research-led practice, for example, Chile has developed a health technology assessment programme; Thailand has implemented evidence-based hospital accreditation; South Africa has given support to systematic reviews; and the Philippines has funded the development of evidence-based guidelines (*44*).

The EPOC database was scrutinized by MB to establish evidence on the organization of maternal health services in developing countries as well as on strategies to promote the uptake of research findings. Of 51 topics that are possibly relevant to maternal and perinatal health — for instance "audit and feedback", "fee-for-service systems of payment", "substitution of doctors by nurses in primary care" — reviews have been published for only 14 topics (27%) based on a total of 180 studies, while for 13 topics protocols for future reviews are available (25%); the remaining 24 topics have not yet been addressed. Of all 180 studies, only 11 were conducted in the maternal and perinatal health field (6%). Only 14 studies (8%) came from low- or middle-income countries, and they sometimes originated in unrepresentative settings, e.g. large hospitals in China, Hong Kong SAR and Thailand. No maternal and perinatal health study from a developing country has been included in any of the EPOC reviews.

Likewise, few of the studies on approaches to changing professional behaviour had been conducted in low-income countries. For example, of 18 studies in the systematic review on educational outreach visits, only two were from low-income countries; only four of 32 studies included in the systematic review on continuing education meetings and workshops came from low-income countries; and only 1 of 21 studies on mass media interventions came from a low-income country. Table 2 summarizes the results of studies from low-income countries. There is evidence that educational outreach (two studies from Indonesia) and mixed group discussions with prescribers and patients (one study from Indonesia) are effective in improving drug prescribing and dispensing. A study from Zambia showed a small positive impact of continuing education meetings on case management, including rational drug use.

Some case studies in low-income settings suggest that strategies such as outreach from existing facilities, social marketing, supportive supervision and application of the principles of quality assurance can result in increased coverage of evidence-based interventions (*45*, *46*). One example is the use of social marketing to increase the use of insecticide-treated nets for malaria control among children living in rural areas of the United Republic of Tanzania (*47*).

The potential for near-term improvements in health to be gained by scaling-up effective interventions is illustrated by the experience of the United Republic of Tanzania's Ministry of Health and its Essential Health Interventions Project (*48*). Evidence linking decentralized health expenditures to cost-effective interventions and targeting the diseases with the highest burdens was generated, packaged and communicated to local planners using a tool to assist them in mapping their budget and expenditure. Preliminary results suggest that supporting decentralized budgeting in this way could result in rapid changes in expenditure patterns with concomitant improvements in health outcomes in the districts concerned (D. de Savigny, personal communication, 2004). This emphasizes the importance of strengthening management capacity at the peripheral level of health systems. In Uganda, wireless technology has been harnessed to provide access to health information, through the launch of the pilot project of the Uganda Health Information Network, using 200 hand-held computers communicating via battery operated units with a base station in Kampala (*49*).

These innovations show promise but require further evaluation. The cost-effectiveness of organizational, behavioural, technological, and financial interventions is likely to depend on the health problem being addressed and also on the socio-political context. This means that a number of rigorous evaluation studies in different low-income countries may be needed. To strengthen external validity, evaluations of effectiveness should include investigations of modifiers of contextual effects: qualitative approaches may be needed to improve understanding of how the interventions work or why they do not. Interventions to be tested need refinement through preparatory research so that the likelihood of effectiveness is maximized. Economic evaluation is required to assess the operational costs of the intervention and its consequences in terms of savings or extra expenditures for providers and users of health-care services. In some cases, the cost of implementation may negate the savings theoretically gained from promoting what are thought to be cost-saving interventions (*50*).

The lack of rigorous evaluations of implementation strategies, particularly in low-income countries, reflects in part the low priority accorded to health and systems research. Many stakeholders involved in implementing public health interventions do not appear to perceive investment in rigorous evaluation to be a priority: they believe they know what should be done, and their main priority is to put their beliefs into practice. In doing so the opportunity to generate robust evidence about how to change policy and practice is lost.

Conclusions

The range of resources and skills required to operationalize effective communication and implementation strategies is rarely available within a single organization, and research institutions may be ill-equipped to undertake these activities effectively on

Table 2. **Studies on promoting evidence-based practice carried out in low- or middle-income countries and reviewed by the Effective Practice and Organisation of Care (EPOC) Cochrane group**[a]

Intervention	Design[b]	Setting and participants	Results
Newsletter with seminar vs newsletter only (vs nothing) to improve rationality of antibiotic prescribing (*51*)	RCT	Sri Lanka; 45 prescribers in 15 state outpatient departments	Small, not significant reduction in antibiotic prescribing
Three two-day seminars over 4 months (vs nothing) to improve quality of management of patients and rational drug use (*52*)	RCT	Zambia; 16 prescribers in health centres	Small but significant improvements (e.g., number of prescribed drugs per patient decreased from 2.3 to 1.9)
Mixed-group discussion with prescribers and patients (vs nothing) to reduce the overuse of various types of injections (*53*)	RCT	Indonesia; prescribers from 24 health centres	Moderately large significant improvements (e.g., proportion of patients receiving injections decreased from 69.5% to 42.3%)
18-day course for three members of hospital team (vs nothing) to improve adherence to guidelines on breastfeeding in hospital (*54*)	RCT	Brazil; 8 maternity hospitals	Small improvements but unclear whether significant
Face-to-face outreach visits plus small-group training (vs nothing) to improve drug-selling practices for diarrhoea in children (*55*)	RCT	Indonesia; pharmacists and counter attendants at 87 private pharmacies[c]	Significant increase in sales of oral rehydration salts (by 40%) and 35% decrease in sales of antidiarrhoeals
Outreach visit plus distribution of educational material vs conferences plus distribution of educational material (vs nothing) to improve prescribers' practice in cases of acute diarrhoea (*56*)	RCT	Indonesia; medical and non-medical prescribers from 90 health centres	Significant decrease in prescribing of antimicrobials (24%) and antidiarrhoeals (40%); only a non-significant increase in prescribing oral rehydration salts. Conferences were more effective, but much more expensive
3-month campaign: TV campaign plus radio campaign plus printed educational material for physicians plus printed educational material for the general public plus international conference for health professionals to increase (i) number of patients presenting with symptoms suspicious for early colorectal cancer and (ii) number of physicians taking appropriate diagnostic steps (*57*)	ITS	Argentina; general public, health professionals	Increase of borderline significance during campaign, but rapid decrease afterwards
Introduction of infection control guidelines to reduce prevalence of hospital-acquired infections (*58*)	ITS	Hong Kong SAR, large hospital; 3 nurses, 809–1260 patients; repeated prevalence surveys	Hospital-acquired urinary tract infections reduced significantly from approximately 3% to 2%
Guidelines plus exposure to local opinion leader plus lecture vs guidelines plus lecture vs guidelines plus opinion leader lecture to improve nurses' reported and observed urinary catheter practice (*59*, *60*)	RCT	Hong Kong SAR, large hospital; 220 nurses, two wards in each arm	Before/after improvements found in all trial arms; combination of lecture and exposure to opinion leader more effective than exposure to opinion leader alone; opinion leader alone more effective than lecture alone[d]

[a] References cited in this table can be found on the web version only, available at: http://www.who.int/bulletin
[b] RCT = randomized controlled trial; ITS = interrupted time series analysis.
[c] The paper reports results from two studies: one in Kenya, one in Indonesia; the study in Kenya was excluded because the allocation was not random.
[d] This possibly reflects a unit of analysis error.

their own. Facilitating interactions between researchers and policy-makers may increase the uptake of research findings and lead to research agendas that more accurately reflect the priorities of policy-makers. A range of specific approaches may be used to promote the use of research evidence. Selecting the best approach for the topic and the context requires an understanding of why current patterns of policy and practice exist, and the strategy selected must be consistent with the local context and the behaviour to be targeted. For example, educational outreach visits may be particularly useful in influencing prescribing and prevention activities. Strategies to communicate research findings to patients and the wider public can have an impact on an individual's decision-making and response to public health messages.

Given the potential for near-term improvements in health resulting from the utilization of research findings for common causes of death in low-income countries, finding cost-effective ways of promoting the uptake of evidence-based interventions should be a priority for researchers, practitioners and policy-makers alike. ■

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Résumé

Combler le fossé entre les connaissances théoriques et leur mise en pratique dans le domaine sanitaire

L'échec de la mise en œuvre d'interventions de santé dont le bon rapport coût-efficacité a été démontré par des travaux de haut niveau est amplement démontré. Ce phénomène touche aussi bien les pays à revenu élevé que les pays à faible revenu. Ces derniers doivent en outre faire face à des difficultés supplémentaires lorsqu'il s'agit de traduire les résultats de la recherche dans la pratique : faiblesse des systèmes de santé, absence de régulation des professions médicales et manque d'accès à l'information. Il est nécessaire de renforcer les institutions et les mécanismes capables de promouvoir plus systématiquement les interactions entre les chercheurs, les responsables politiques et autres partenaires susceptibles d'influer sur l'utilisation des résultats de la recherche. Le concept d'engagement du public en faveur de la recherche en santé implique que ledit public soit à la fois informé et actif. Même lorsqu'il existe des revues systématiques des travaux de recherche, il faut encore en traduire les résultats en directives ou en messages compréhensibles pour les patients et les professionnels de santé. Nombre des approches couramment utilisées pour que les professionnels de santé puissent mettre à jour leurs connaissances semblent n'avoir que peu d'effet. On a en revanche davantage de preuves de l'efficacité des interventions axées sur les professionnels, comme l'éducation, les aide-mémoire ou le retour d'information, que de celles qui visent les organisations ou les patients. L'effet des interventions varie selon le contexte et le comportement visé. D'après des études de cas dans des contextes de faible revenu, certaines stratégies pourraient se traduire par une meilleure couverture des interventions reposant sur des bases factuelles, mais on manque d'informations tirées de revues systématiques de travaux de recherche bien conduits. Etant donné le potentiel d'amélioration de la santé à brève échéance, la découverte de moyens plus efficaces de promotion des interventions reposant sur des bases factuelles devrait être une priorité pour les chercheurs, les praticiens et les responsables politiques.

Resumen

Cerrar la brecha de aplicación entre los conocimientos y la acción sanitaria

Está ampliamente demostrada la incapacidad para ejecutar muchas intervenciones sanitarias cuya costoeficacia ha sido avalada por investigaciones de alta calidad; este fracaso afecta tanto a los países de ingresos bajos como a los de ingresos altos. Los primeros tienen que superar además otros problemas a la hora de usar los datos de investigación, entre los que cabe citar la precariedad de sus sistemas de salud, la falta de regulación profesional y la falta de acceso a los datos relevantes. Hay que fortalecer las instituciones y los mecanismos que permiten promover más sistemáticamente la interacción entre los investigadores, los formuladores de políticas y otros interesados directos que pueden influir en la aplicación de los resultados de investigación. La idea de lograr la participación de la población en las investigaciones sanitarias exige un público documentado y al mismo tiempo activo. Incluso cuando existen revisiones sistemáticas, se requieren trabajos ulteriores para traducir sus resultados en directrices o mensajes que sean comprensibles para los pacientes y los profesionales de la salud. Muchos de los enfoques comúnmente adoptados para mantener actualizados los conocimientos de los profesionales de la salud parecen tener efectos escasos o desiguales. La evidencia disponible es mayor para las intervenciones dirigidas a los profesionales, como la educación, los recordatorios o la retroalimentación, que para las dirigidas a las organizaciones o los pacientes. El efecto de las intervenciones depende de las circunstancias y del comportamiento considerado. Los estudios de casos realizados en entornos de ingresos bajos indican que algunas estrategias pueden traducirse en una mayor cobertura de las intervenciones basadas en la evidencia, pero faltan datos sólidos aportados por revisiones sistemáticas de investigaciones rigurosas. Considerando el potencial existente para introducir mejoras a corto plazo en la salud, la búsqueda de fórmulas más eficaces para promover la aplicación de intervenciones basadas en la evidencia debe ser una prioridad de los investigadores, los profesionales de la salud y los formuladores de políticas.

ملخص

سد ثغرة التنفيذ بين المعارف والممارسة في مجال الصحة

الملخص: ثـَمَّة بيِّنات من العديد من الأماكن على فشل تنفيذ الـمُداخلات الصحية التي أثبتت البحوث العالية الجودة أنها عالية المردود؛ وهو فشل يؤثـِّر في البلدان ذات الدخل المرتفع والمنخفض على السواء. وتواجه البلدان المنخفضة الدخل مزيداً من التحدِّي أمام الاستفادة من البيِّنات الناتجة من البحوث، وتشمل هذه التحدِّيات: ضعف النُظُم الصحية لهذه البلدان، ونقص التشريعات المهنية، ونقص فرص الحصول على البيِّنات. وتمس الحاجة لتقوية المؤسسات والآليات التي يمكنها تعزيز التفاعل بين الباحثين وراسمي السياسات وسائر المعنيِّين الذين يمكنهم التأثير في فهم واستيعاب نتائج البحوث بشكل منهجي. ويتطلَّب مفهوم مشاركة الجمهور في البحوث الصحية أن يتصف الجمهور بالوعي والنشاط. وحتى مع وجود المراجعات المنهجية يتطلَّب الأمر مزيداً من العمل لتحويل نتائج هذه المراجعات إلى دلائل إرشادية أو رسـائل يسهل على المرضى والمهنيِّين الصحيِّين فهمها. ويبدو أن العديد من الأساليب الشائعة الاستخدام في تحديث معارف المهنيِّين الصحيِّين ذات تأثيرات محدودة أو تفتقر إلى الانسجام. فالأسلوب المسند بالبيِّنات أكثر استيعابا للـمُداخلات الموجهة إلى المهنيِّين، مثل التثقيف أو الرسائل التذكيرية أو المعلومات الارتجاعية، من الـمُداخلات الموجهة إلى المنظمات أو المرضى. ويتفاوت تأثير الـمُداخلات بحسب الموقع وبحسب السلوك المستهدف. فتشير دراسات الحالات التي أُجريت في البلدان ذات الدخل المنخفض إلى أن بعض الاستراتيجيات يمكن أن تسفر عن زيادة التغطية بالـمُداخلات المسندة بالبيِّنات، ولكن ثـَمَّة نقصاً في البيِّنات الناتجة من المراجعات المنهجية للبحوث ذات المنهجية الصارمة. وأخذاً في الاعتبار إمكانية تحقيق تحسُّن سريع في الوضع الصحي نتيجة للـمُداخلات المسندة بالبيِّنات، ينبغي الاهتمام بإيجاد وسائل أكثر فعالية لتعزيز استيعاب هذه الـمُداخلات، واعتبار ذلك من أولويات الباحثين والممارسين وراسمي السياسات.

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